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# Public Grievances Redressal and Management System

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***Abstract:*** ***The*** **Public Grievances Redressal and Management System for the Electricity Department** ***is a web-based application developed to provide an efficient, transparent, and reliable platform for handling electricity-related complaints raised by the public. The system focuses on simplifying the process of grievance submission, tracking, and resolution while ensuring accountability at every stage. It is designed using Python (Flask) for backend development and HTML, CSS, and JavaScript for building an interactive and user-friendly interface. The system consists of multiple modules, including User, Subdivision Admin, and Division Admin. The User Module allows citizens to register and log in securely through OTP-based authentication using either a mobile number or email. After successful login, users can access a dashboard to submit grievances by entering details such as district, subdivision, problem type, title, and location. The application also provides a "Get Location" feature using an API to automatically capture the user's current location. Additionally, users can upload supporting images to provide better clarity regarding their complaints. Users can also track the status of their submitted grievances in real time. Once a grievance is submitted, it is automatically forwarded to the respective Subdivision Admin based on the selected location and department details. The Subdivision Admin Module enables administrators to view, manage, and update the status of complaints. All updates, along with timestamps, are reflected in the user dashboard to ensure transparency and continuous communication between the user and the department. The system also incorporates an escalation mechanism to ensure timely resolution of complaints. If a grievance remains unresolved or in the "submitted" state for more than 48 hours, the user is provided with an option to escalate the complaint. Upon escalation, the grievance is forwarded to the Division Admin, who acts as a higher authority. The Division Admin can review escalated complaints and redirect them to the appropriate subdivision for further processing, ensuring that no complaint is left unattended. The application follows a centralized data management approach, enabling efficient storage and retrieval of grievance records. It ensures data security through proper authentication and role-based authorization, restricting access based on user roles. The system improves efficiency, reduces manual workload, enhances transparency, and provides a structured workflow for grievance handling.***

***Keywords: Grievance Management, Electricity Complaints, Escalation System, OTP Authentication, Location-Based Services, Admin Dashboard, Real-Time Tracking.***

## I. INTRODUCTION

The Public Grievances Redressal and Management System for the Electricity Department is designed to provide an efficient platform for handling electricity-related complaints. Traditional grievance handling methods are often slow and lack transparency, leading to delays in resolution. This system enables users to submit complaints easily through a web-based interface. It ensures proper routing of grievances to the concerned authorities based on location and department. The application also provides real-time status tracking and an escalation mechanism for unresolved issues. Overall, the system improves efficiency, transparency, and communication between the public and the electricity department.

## II. SYSTEM ANALYSIS

### *A. Existing System*

The existing system for handling electricity complaints is mostly manual and time-consuming. There is a lack of proper tracking and transparency in grievance handling. This often leads to delays, miscommunication, and unresolved complaints.

### *B. Proposed System*

The proposed system is a web-based application that enables users to submit and track grievances online. It provides automated routing, real-time status updates, and an escalation mechanism for timely resolution. The system improves efficiency, transparency, and accountability in complaint management.

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## III. DEVELOPMENT ENVIRONMENT

### A. *Hardware Requirement*

Processor type : Intel i3 processor or more
RAM : 8GB
Hard disk : 1TB

### B. *Software Requirements*

Operating System : Windows 10
Front End : HTML, CSS, JavaScript
Back End : Python

## IV. MODULES DESCRIPTION

### A. *User*

The User Module allows citizens to register and log in securely using OTP-based authentication. Users can submit grievances by providing details such as location, problem type, and supporting images. It also enables users to track complaint status in real time and escalate issues if not resolved within the specified time. Additionally, users can manage their profile and view grievance history.

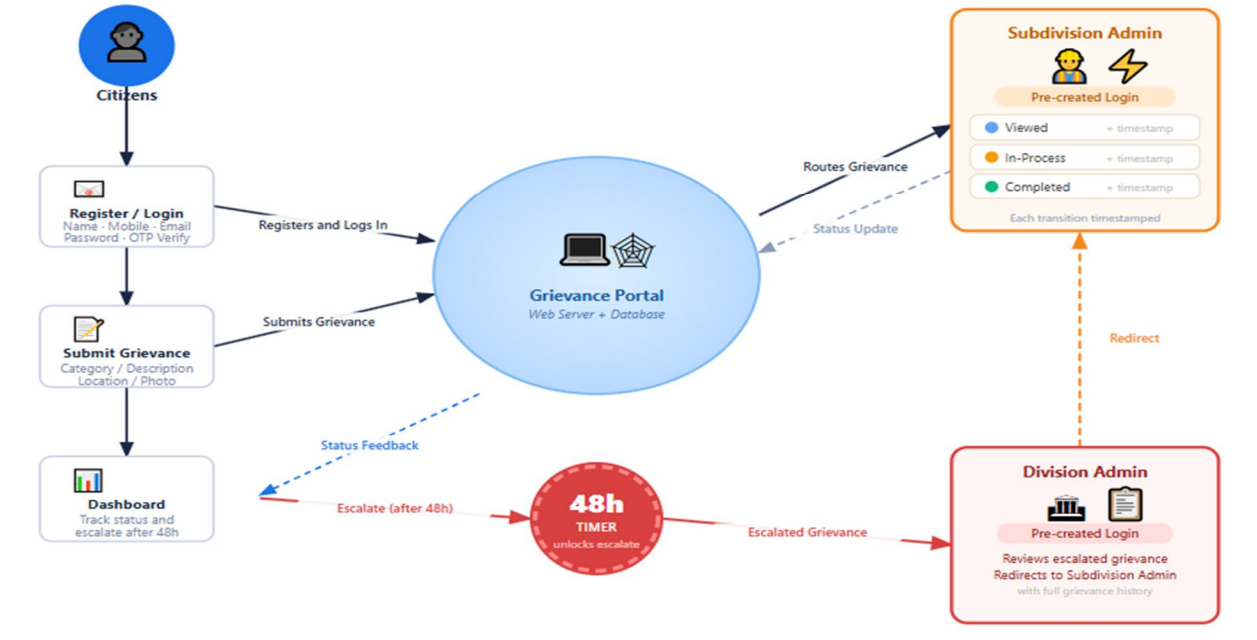
### B. *Subdivision*

The Subdivision Admin Module enables administrators to manage grievances specific to their subdivision. Admins can view, process, and update the status of complaints, ensuring timely resolution. All updates are reflected on the user dashboard with timestamps for transparency. This module also handles grievances redirected from higher authorities after escalation.

### C. *Division*

The Division Admin Module acts as a higher-level authority for monitoring escalated complaints. Division admins can review grievances that were not resolved at the subdivision level. They have the authority to redirect complaints to the appropriate subdivision for further action. This ensures proper handling and prevents any grievance from being neglected.

## V. SYSTEM ARCHITECTURE



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## VI. CONCLUSION

The Public Grievances Redressal and Management System provides an efficient and transparent solution for handling electricity-related complaints. It simplifies grievance submission, tracking, and resolution through a structured and automated workflow. The system enhances communication between users and authorities while ensuring accountability at every stage. Overall, it reduces manual effort and improves the speed and reliability of grievance management.

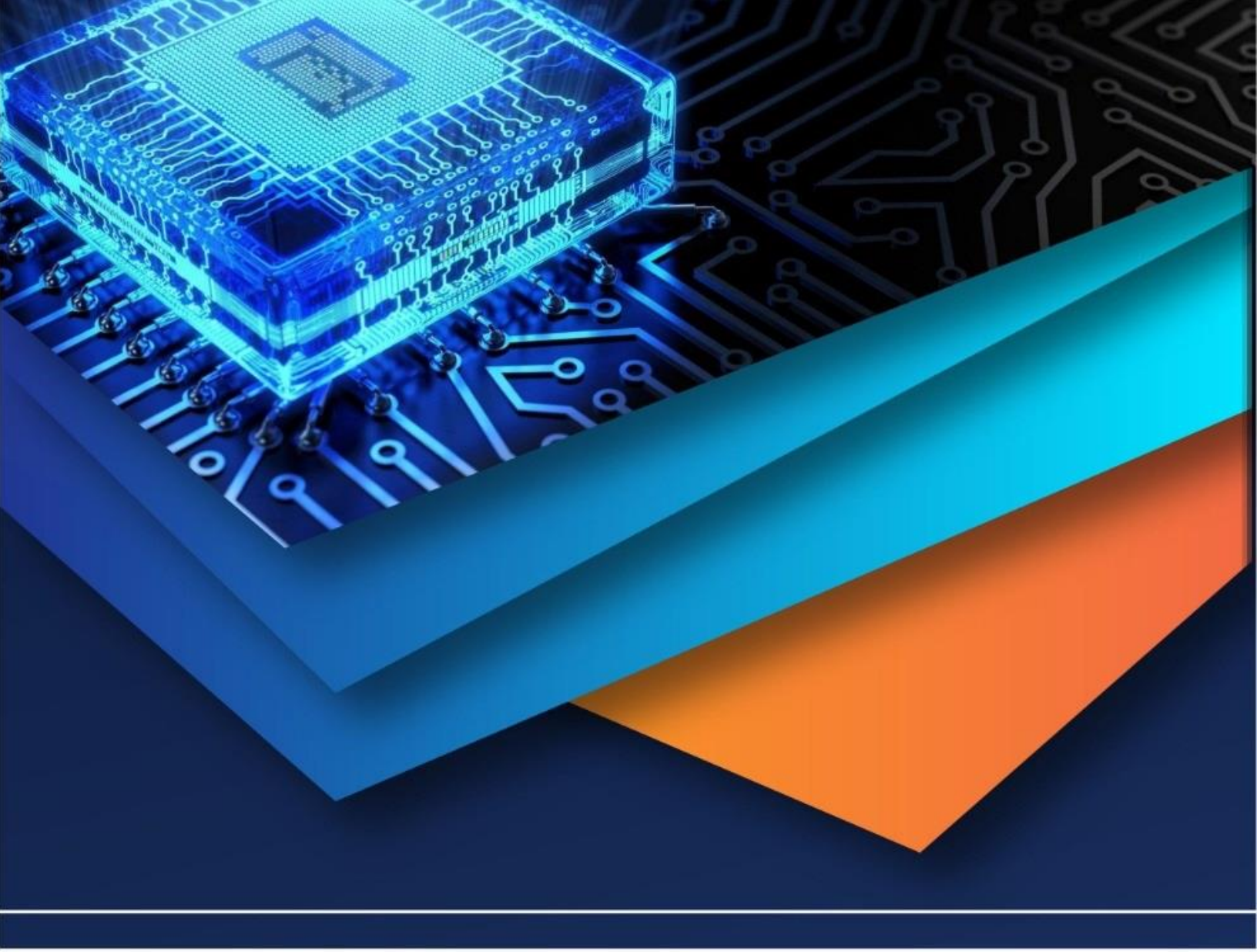
## VII. FUTURE ENHANCEMENT

The System can be further enhanced by integrating Mobile Application support for better accessibility. Advanced features like AI-based complaint categorization and priority handling can be implemented. Integration with SMS and email notifications can improve user awareness and communication. Additionally, data analytics and reporting tools can be added for better decision-making and performance monitoring

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